36. The method according to claim 33, wherein the textual language comprises structured text according to IEC 6-1131.

37. The method according to claim 36, wherein a user can switch between structured textual language, contact plan and function plan as forms of representation for formulating conditions.

38. The method according to claim 33, wherein the motion control flowchart notation comprises at least one of the group consisting of loop and parallel branch language elements.

39. The method according to claim 38, wherein the controller executes interpolation cycles and individual commands are initiated in a given interpolator cycle within a respective parallel branch.

40. The method according to claim 33, wherein parameters for the function blocks are set via a mask input.

41. The method according to claim 33, wherein function blocks are combined into modules that are represented as function blocks in motion control flowchart notation.

42. The method according to claim 42, wherein interleaved modules are provided in motion control flowchart notation.

43. The method according to claim 33, wherein a plurality of variable assignments are supported for variables in the function blocks represented in flowchart notation.

44. The method according to claim 33, wherein function blocks representing functions requiring a given period of time comprise step-enabling conditions in motion control flowchart notation.

45. The method according to claim 33, wherein graphical elements of the flowchart are automatically positioned.

46. The method according to claim 33, wherein graphical elements of the flowchart are automatically linked together.

47. The method according to claim 33, wherein the flowchart is adopted to be displayed in a form selected from the group consisting of an enlarged form and a reduced form .

48. The method according to claim 33, wherein the textual language comprises notation facilitating its re-transaction to flowchart notation.

49. A device for programming an industrial control system, in particular motion controllers, wherein control structures and function blocks are linkable by a user by via a graphical editor to form a motion control flowchart that can be visualized on a display device, the device comprising the following successive steps:

a) means for generating a textual language from the flowchart;

b) means for compiling the textual language in a processor-independent pseudo-code;

c) means for loading the processor-independent pseudo-code into the controller; and

d) means for converting the processor-independent pseudo-code into executable processor code;

wherein programming language commands are provided in the flowchart editor as a function of the configuration of at least an aspect of the control system.

50. The device according to claim 49, wherein appropriate graphical elements comprising function interfaces of respective subprograms are generated in motion control flowchart notation based on user-defined subprograms in structured textual language.

51. The device according to claim 49, wherein automatically generated graphical elements are provided as language elements of the motion control flowchart.

52. The device according to claim 49, wherein the textual language comprises IEC 6-1131 textual language.

53. The device according to claim 52, wherein a user may switch between structured textual language, contact plan and function plan as forms of representation in formulating conditions.

54. The device according to claim 50, wherein the language elements in motion control flowchart notation comprise at least one of the group consisting of a loop and a parallel branch.

55. The device for according to claim 54, wherein the controller executes interpolation cycles and individual commands are initiated in a given interpolator cycle within the respective parallel branch.

56. The device for programming according to claim 50, wherein parameters for function blocks are set via mask input..

57. The device according to claim 50, wherein a plurality of function blocks are combined into a module that is represented as a function block in motion control flowchart notation.

58. The device according to claim 57, wherein interleaved modules are provided in motion control flowchart notation.

59. The device for programming according to claim 50, wherein a plurality of variable assignments is supported for variables in the function blocks represented in flowchart notation.

60. The device according to claim 50, wherein step-enabling conditions are provided in motion control flowchart notation for function blocks representing functions requiring a period of time.

61. The device according to claim 50, wherein graphic elements of the motion control flowchart are adapted to be automatically positioned .

62. The device according to claim 50, wherein graphic elements of the motion control flowchart are adapted to be automatically linked together .

63. The device for programming according to claim 50, wherein the motion control flowchart is adapted to be presented on the display in a form comprising one of the group consisting of an enlarged form and a educed form visualized in a reduced or an enlarged form in the display.

64. The device for programming according to claim 50, wherein the textual language comprising notation facilitating its re-translation to flowchart notation.